



FORESTLAND STEWARDS

WORKING TOGETHER FOR HEALTHY FORESTS

SUMMER 1997

The New Year's Flood of 1997: How should a landowner respond?

Richard Harris

Many Californians became acutely aware of nature's power through media coverage of the massive flooding early this year. Our images of those events were shaped by the scenes of flooding and destruction in downstream urban and agricultural areas. Some of us were unfortunate enough to be directly affected. For forest landowners, especially those in steep upland areas of watersheds, the effects were sometimes dramatic but different than what was shown on the television. With some notable exceptions, such as the Highway 50 landslide of late January, the media did little to cover what happened in upland forested watersheds. Little is known about these effects on either public (Forest Service) or private lands.

Study on forest effects

At the present time, there is a state and federal interagency effort underway to assess the effects on forests of the floods and the storms that spawned them. The goal of this assessment is, in part, to determine appropriate management responses to large-scale natural disturbances. For a forest landowner, it is important to consider not only the obvious economic



Woody debris deposited in streams due to the recent floods contributes to aquatic habitat diversity and stream stability. Landowners should refrain from automatically removing debris from streams unless there is some compelling reason. Department of Fish and Game biologists should be consulted for advice on woody debris removal.

effects on infrastructure, but the positive and negative ecological effects as well.

The holiday floods were triggered by a massive tropical storm, dubbed the "Pineapple Express," which dumped huge amounts of warm rainfall on deep mountain snowpacks. The storm moved south to north with rain occurring up to elevations of 11,000 feet. The magnitude of flooding observed in the region's major

rivers tracked the course of the storm (see figure page 9).

The hardest hit basins were in the central and northern Sierra Nevada. The Klamath Province and California Coast experienced locally severe runoff and flooding but were for the most part, spared this time. Effects on uplands (e.g., landslides, road failures, debris flows)

(continued on page 8)



BJ62
Cooperative Extension
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From the Editor

Forestland Steward continues to evolve

This newsletter has seen many changes since its inception in 1995 and this issue brings another. We have merged with the Cooperative Extension newsletter, *Natural Resources News*, expanding in size and readership in the process. At the same time, we are now a publication of the Stewardship Committee, representing a broad base of interests (see page 12).

This cooperative venture has many benefits. We are eliminating some redundancy between two newsletters and saving paper and costs. But most importantly, we hope to increase communication among resource professionals, forest landowners, and others through the articles here.

What can you expect now? We will provide articles covering a wide range of timely issues and topics related to forest stewardship. Each newsletter will

also have in-depth articles provided by Cooperative Extension. For his many fans, Richard Harris will continue to write his column "Out on a Limb with the Extension Forester." We will also let you know about helpful resources and upcoming events.

The purpose of *Forestland Steward* is to "improve communication with forestland owners and provide better access to technical information that will help landowners become better stewards of their forestland." We believe these changes will help that mission.

So welcome to our new publication. As always, we rely on you to let us know what we are doing right or wrong and how we can better serve your needs and interests.

Many have been asking...in the near future we expect to have a Stewardship web site. We'll let you know.

—Laurie Litman (llitman@igc.apc.org)

Individual projects can find funding as part of a community plan

One of the recurring themes of this newsletter is the relationship between individuals and their community. Decisions about private lands are made by individual landowners and so we provide information to encourage good stewardship. At the same time, individual decisions affect the well-being of the community and we highlight larger community efforts.

Currently, due to fiscal restraints and changing priorities, cost-share and assistance programs are more likely to go to community-level projects than to individual landowners. How can landowners become part of this?

First of all, each landowner should have a management plan for his/her

land. This will include personal goals for the land and steps necessary to accomplish them. Technical assistance is available through many agencies including California Department of Forestry & Fire Protection (CDF), Resource Conservation Districts (RCDs) and Natural Resource Conservation Service (NRCS).

Then, find out if there is a community plan into which your individual plan can fit. If not, get involved with others to develop one. Working together at the community level provides greater opportunities for funding and accomplishing larger-scale projects. This takes effort but the rewards are worth it. And, individual projects may be properly funded as part of a community project.

FORESTLAND STEWARD

Forestland Steward is a publication of the
California Forest Stewardship
Coordinating Committee
P.O. Box 944246
Sacramento, CA 94244-2460
(916) 653-8286
Fax (916) 653-8957

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Out on a Limb with the Extension Forester

Richard Harris

Greetings from the University of California Cooperative Forestry Program. Beginning with this issue, we will be contributing a column to *Forestland Steward* describing items of interest to forest landowners and professionals who serve them. We welcome your comments and suggestions for topical coverage.

Cooperative Extension Forestry is housed in the Department of Environmental Science, Policy, and Management on the Berkeley campus. Staff at Berkeley includes Richard Harris, Extension Forestry Specialist, and John LeBlanc, Staff Research Associate. Gary Nakamura, Extension Forestry Specialist, is housed at the Shasta County Cooper-

ative Extension Office in Redding. Richard and John work throughout the state and Gary focuses his work on the northern Sierra Nevada and Klamath provinces.

In addition, we work closely with the Integrated Hardwood Range Management Program (IHRMP) headed by Rick Standiford. IHRMP works with hardwood range ecosystems and has several Specialists located throughout the state. More details can be obtained from Rick.

There are several Cooperative Extension Advisors located in the counties who include forest land management within their program areas. These include Mike De Lasaux in Plumas-Sierra Counties, Bill Frost in El Dorado County, Kim Rodrigues in Humboldt-

Del Norte Counties and Greg Giusti in Mendocino County. We all have direct access to the faculty at the Berkeley and Davis campuses to help us address issues.

Our work includes a variety of direct outreach, training and research. The best bet for a landowner is to first contact local CE offices to ask advice. Local Advisors can then refer questions to Specialists or faculty, as needed.

We do a lot of work organizing and conducting workshops and preparing technical publications. At present, we are developing a comprehensive curriculum on forest land assessment and management for landowners that will be completed by early next year. In late summer, 1997, we will hold a series of workshops for landowners in the northern Sierra region to introduce the curriculum in a field setting. Contact Gary Nakamura for more information on this. We also prepare an electronic calendar of upcoming events. If you have access to the internet and would like to subscribe, contact John LeBlanc.

In the past, we have held workshops on fire management, monitoring, management and cost assistance programs for landowners. We would like your suggestions on workshops that we might conduct in your region in the future. Our outreach is closely coordinated with Stewardship partners such as RCDs, the Department of Forestry & Fire Protection and the Natural Resources Conservation Service.

In future columns we will update you on planned events and publications.

For more information, contact John LeBlanc at 510-642-6678 or e-mail: jleblanc@nature.berkeley.edu. You can find your local UC Cooperative Extension office by calling Wendy Wickizer at the Stewardship Helpline, 1-800-PET-TREE, or look in the Government pages of the phone book for Farm and Home Advisors Office, University of California Cooperative Extension. There is also a DANR directory at: <http://danr.ucop.edu/danrdir/>.

Spell it out

Sometimes it seems like a secret language known only to a select few. Irritating and confusing as they may be, acronyms save space and help one avoid tripping over a mouthful of words. Here's the key to most of the letters you'll find in this issue. But don't become too complacent. Acronyms have a way of multiplying and mutating just when you think you've got them down.

BLM—Bureau of Land Management

CDFG—California Department of Fish & Game

CDF—California Department of Forestry & Fire Protection

CRMP—Coordinated Resource Management & Planning (process by which a group of people with diverse interests work together to share concerns, solve problems and improve a watershed)

EQIP—Environmental Quality Incentives Program (new cost-share program)

FLP—Forest Legacy Program (a federal program to protect private forests threatened with nonforest uses)

FSP—Forest Stewardship Program (program to encourage and assist private forestland owners in using sound management practices)

NRCS—Natural Resource Conservation Service (formerly Soil Conservation Service)

RC&D—Resource Conservation and Development Council (a multi-county program supported by NCRS)

RCD—Resource Conservation District (local district concerned with resource use)

RFP—Request for Proposals (formal application request for grants or contracts)

SIP—Stewardship Incentive Program (cost share program for forest landowners)

UCCE—University of California Cooperative Extension (sometimes known as CE)

USFS—United States Forest Service



It's *Deja Vu* All Over Again!

Robert W. Cermak

This well worn saying by Yankee catcher Yogi Berra applies to wildfires and efforts to control them for the last 100 years. Fire protection didn't just happen! In the last century virtually everybody was careless with fire. More importantly, many people deliberately set fires in the mountains to make their jobs easier by removing trees and brush. Like so many things we do even today, there can be too much of a good thing. While some fire carefully applied was a good thing, lots of fire recklessly applied became a bad thing. The result was the establishment of a Board of Forestry in 1885, forest reserves in 1892, the U.S. Forest Service in 1905, State Forest Rangers in 1919, and the CDF in 1927. Fire protection was a primary objective of all of these organizations.

People 100 years ago were just as innovative as we are today, so most of the techniques used to combat wildfire have been tried before. The first aircraft use on a wildfire was in 1913. Dropping water from the air was tested in 1921. Goats were used to eat brush near Los Angeles in 1914. Fuelbreaks were built in the San Gabriel Mountains before 1900. The City of Los Angeles tried to ban the use of wood shakes for homes in 1919. The list goes on, but today we have a situation not present 100 years ago, 50 years ago, even 30 years ago—a very large and ever growing population living in wildlands. What to do?

First, we must recognize that if we want to live safely in wildlands we must

be fire safe. In the final analysis, each home or property owner is personally responsible for his or her fire safety. You can depend upon it, if something can go wrong in the fire suppression effort, it will! The winds are too high to fly tanker aircraft, the terrain too steep for dozers, the fire crews are occupied with other fires, or the roads are blocked by traffic or down power lines. The fire protection agencies do their best, but they are not superhuman despite what our TV screens show us.

**Making a wildland home
fire safe doesn't take the
mind of a rocket scientist,
but the back of a stevedore
would be a big help.**

Effective fire protection is very complex and varies according to local conditions. Differences in vegetation, terrain, structure location and a number of other variables require adjustments, but there are some basics that all property owners can observe. These basics are available in many leaflets and plans at local CDF or fire department offices.

Making a wildland home fire safe doesn't take the mind of a rocket scientist, but the back of a stevedore would be a big help. It takes physical work, but the alternative may be what has happened to thousands of

homeowners in California over the last 20 years—a home and irreplaceable personal possessions destroyed by wildfire! Most importantly, when the work is done it must be maintained. Lack of maintenance has been the biggest enemy of many other fire safe programs over the last 100 years.

All of us who live in wildlands must be aware of weather conditions during fire season. History shows that all bad fire seasons occur during drought years. However, in California every summer after August 1st is a drought. High temperatures, wind and low humidity should make us take extra precautions. Get serious! Prevent fires. Be fire safe. In California every wildfire is *deja vu* all over again. Don't let it happen to you!

Robert Cermak objected to the Fire Plan article in the last issue saying, "blaming past fire control for current forest problems is an easy way out but does not tell the whole story." And no one would know better. After a career in forestry, Mr. Cermak went back to school where he wrote his Masters thesis on the History of Fire Control in California. He strives to keep his land in the foothills fire safe.

Further reading:

- *Reports of the First Board of Forestry 1885-1892*
- *CDF history* by Ray Clar
- *Report on the Stanislaus and Lake Tahoe Forest Reserves, 1900* by George Sudworth
- *Report on Forest Conditions in the Northern Sierra Nevada, 1902* by John Leiberger
- *Bibliography of Early California Forestry, 1849-1939*, 69 vol. U.C.B. Forestry Library
- *Fire in the Forest: A History of Fire Control in the California National Forests* by Robert W. Cermak



Fire safe in Descanso

To the 2,000 residents of Descanso, the East San Diego County setting is idyllic: oaks, chaparral and the wildlands of nearby Cleveland National Forest and Cuyamaca Rancho State Park.

The risk of catastrophic wildfire, however, is anything but ideal. Most of the 35,000 acre area has not seen a significant fire in more than 50 years, and the resulting build-up of highly flammable brush and other fuels has created an extreme hazard for this quiet community.

Local vegetation is adapted to the periodic fires that sweep the area and many thrive afterwards by sprouting or germinating after a burn. Fire is the norm, not the exception.

"It's not a matter of if, but when a major fire will occur," explained Penny Dockry, Executive Director of the Resource Conservation District of Greater San Diego County (RCD). "Residents have to learn how to respond and protect their property. Firefighters may not be available when they need them."

Because of the high risk of catastrophic wildfire, the RCD, in cooperation with the Forest Service and other agencies, organized a year long Fire Safe Descanso Educational Program. The goal was to educate residents about the dangers of the situation and teach them how to protect themselves and their community.

The project, supported primarily by a \$12,000 stewardship grant from California Department of Forestry & Fire Protection (CDF), stressed a multifaceted community outreach approach. There were radio spots and press releases, postcards and presentations to homeowner associations.

Two workshops were also held to educate residents on the fire hazards that exist and ways to reduce those hazards. As a result, many people changed their ways.



Amy Lee

Overgrown fuel breaks are one of the concerns addressed in the Vegetation Management Plan for the Descanso area.

"People moved their woodpiles away from their homes when they realized how dangerous it was," said Penny Dockry, noting citizen follow-up to the workshops. "There was a lot of cleanup done."

While homeowners were encouraged to create individual management plans for their private lands, a community plan was needed for the undeveloped areas. To accomplish this, the RCD, with funding from CDF, contracted with a professional forester to develop a Vegetation Management Plan for Descanso.

The goal of the plan is to "maintain fire safe and well managed natural resources for the enjoyment of present and future landowners." It also provides recommendations and guidelines to assist the community in reducing/managing the fuel load buildup, improving environmental conditions, and maintaining aesthetic values.

The Vegetation Management Plan points out several opportunities to manage for healthy and fire safe vegetation. It suggests dividing the area

into management units, possibly by watershed, for planning purposes. Some of the specific recommendations include:

- Removal of hazardous vegetation and material on public and private property. Structures should have a minimum 30' clearance but 100' is preferred.
- A network of fuel breaks should be established to help protect resources.
- A prescribed burning program should be initiated to reduce and manage the fuel load.

The Vegetation Management Plan is a working document to guide the community in the steps needed to reduce the fire hazard risk. It even provides costs and schedules for carrying out the specific projects.

With this plan in place, Penny Dockry is optimistic that the community can get funding to implement the suggestions and save Descanso from this intimidating fire hazard.

She also noted the plan does not have to stop with Descanso. "This vegetation plan can be a model for the county."



Leveraging \$15,000 into \$1,000,000

It all started with a stewardship grant of \$15,000 three years ago to an informal group working in the foothill community of Meadow Vista.

The group, consisting of representatives of several local agencies, had been meeting monthly to share fire-safe concerns. The grant allowed them to do community outreach about healthy forests and fuel load reduction with on-the-ground demonstration projects to show how it is done.

Through this group a partnership was formed between the Placer County Resource Conservation District (RCD) and the Natural Resources Conservation Service (NRCS). NRCS brought cost-share assistance to interested landowners who shared their experiences with friends and neighbors.

Encouraged by these accomplishments, the informal group expanded their program to the Forest Hill community and, with a second \$15,000

stewardship grant, continued their work with new demonstration sites, creation of a fuel break, a conference, and other forms of community outreach. Public acceptance was high and, out of this, a formal CRMP (Coordinated Resource & Management Planning) was created which has become the American River Watershed CRMP.

The American River Watershed CRMP is a remarkable group, consisting of interested parties (stakeholders) in all areas—private and public, for-profit and nonprofit; local, state and federal agencies. Everyone is talking together and enthusiastic about the possibilities of their cooperative effort.

At a recent meeting of the American River Watershed CRMP, the group was asked: "What would you do with a portion of a million dollars?" With the help of a skilled facilitator, a wish list was made and subgroups formed: fuel hazard reduction, data, monitor/

assessment, education, process/administration and biomass. These subgroups have now taken on lives of their own. Some have already begun work. Each has come up with projects, costs, priorities and timelines for their areas of interest. All together, the projects total just over \$1 million.

All this planning has placed the American River CRMP in the right place at the right time. An RFP for Proposition 204 funding is just coming out for grants of up to \$1 million and they are ready. Not only that, there may be additional monies available through CalFED and other sources for projects beyond the \$1 million.

The members of the CRMP have every reason to feel pleased with their work. Good communication, effective partnerships, creative use of funds, community outreach and enthusiastic involvement are paying off for the American River watershed.

Funding for community projects

Where do you go to find out about funding? A good place to start is the "blue book" from UC Cooperative Extension entitled *Cost Share and Assistance Programs for Individual California Landowners and Indian Tribes*. It's in the process of being updated but still has lots of useful information. You can get a copy from Extension Forestry, 163 Mulford Hall, University of California, Berkeley, CA 94720, (510) 642-2360.

Contact your Regional Water Quality Control Board to find out about **Proposition 204** funding for restoration projects within watersheds that are tributary to the SF Bay Delta. Grants of up to \$1 million are available. The Request for Proposals (RFP) is expected to be released sometime in June. (916) 255-3098.

Groups should also contact their Regional Water Quality Control Board to find out about EPA-funded grants under the **319** and **204J** programs of the Clean Water Act. Although the deadline for those grants passed on April 18, there will be another round next year.

CalFED has \$60 million dollars available for funding projects. An RFP will be going out in early June with funding cycles every six months until enough projects are selected. For information call (916) 657-2666.

EQIP is a new program that works in priority areas where there are serious and critical environmental needs and concerns. The program has \$200 million per year through 2002 and applications are accepted continuously

throughout the year. To find out more about this program, contact your local Natural Resource Conservation Service or Farm Services Agency office.

Other programs that pertain to communities:

Urban Forestry Grant Program, California Department of Forestry & Fire Protection, (909) 782-4140 x6125

California Riparian Habitat Conservation Program, California Department of Fish & Game, (916) 445-1072

Fisheries Restoration Grant Program, California Department of Fish & Game, (916) 654-6505

Hazard Mitigation Grant Program, Federal Emergency Management Agency, (510) 286-0821



Seasonal Stewardship

The fire season is here

Make your property fire safe:

- Create defensible space around all structures. While a 30 foot clearance is required by California law, research shows that 100 feet provides much better protection. Buildings on slopes require even greater clearance distances—up to 400 feet downhill and 200 feet on sides and uphill.
- Clear fire breaks.
- Make sure access roads are passable for firefighting vehicles.
- Determine which water hookups will accept a fire hose.
- Notify local firefighters of your location and make sure your address is clearly visible from the road for easy identification in an emergency.

If you are working in the woods:

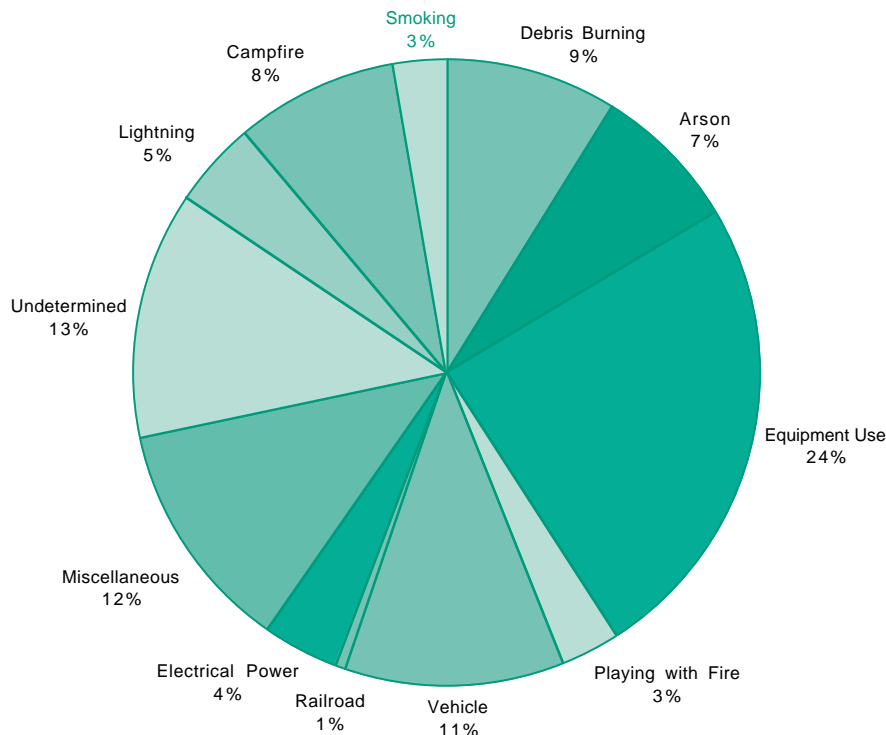
- Use spark arrestors on all power equipment
- Keep a bucket, shovel, backpack and water pump with you.

Burning tips:

- Burn only when allowed. Check with your local Fire Chief and get a permit if required.
- Clear at least 10 feet to bare dirt and remove dirt from piles.
- Brush should be cut and dried at least 30 days prior to burning.
- Piles too large to burn safely can be fed into a smaller pile as it burns.
- An adult must be in attendance at all times with a shovel and water.

Causes of California Fires (1996)

Total fires = 7237



Three ways to create defensible space

1 Remove fuel. Remove most of the native shrubs and young sapling trees that are growing within the defensible space. Leave only a few well-spaced, large trees and saplings and an occasional young shrub. Remove branches within 1 foot of the ground from all trees left on the site. This helps prevent fire from climbing a fuel ladder from grass, pine needles, and leaves on the ground up into the tops of the trees.

2 Reduce fuel. Prune shrubs and trees left within the defensible space around structures. Remove rocks that will cause sparks when hit by a lawn mower. Clean up pine needles, mow grasses and other small plants while they are green at a time when fire danger is not high. Your mower must have a spark arrester and you should have water and a fire extinguisher available just in case your mower strikes a rock and ignites dry materials.

3 Replace native fire hazardous plants with fire-resistant landscaping. Many introduced plants such as junipers are extremely fire hazardous. Well-maintained and irrigated turf, flower beds, and groundcovers will offer less fuel for a wildfire. A list of fire-resistant plants can be obtained from your local farm advisor or CDF office. Don't overplant or allow dead landscape materials to accumulate.

—from A Property Owner's Guide to Reducing the Wildfire Threat, produced by UC Cooperative Extension. Available from Joni Rippee, UCCE-IHRMP, 163 Mulford Hall, Berkeley, CA 94720-3114, (510) 643-5429; rippee@nature.berkeley.edu. Single copies free, contact for quote for multiple copies. May be available at your local CE office.



New Year's Flood *(continued from page 1)*

were not always directly correlated with streamflow peaks measured at downstream gaging stations. Upland effects depended on the inherent susceptibility of the land to disturbance. Some of the Klamath River basin suffered extreme upland effects because of steep, unstable slopes and a high density of roads. Some of the most devastated areas were in the Feather River, Cosumnes River, North and South Forks of the American River and Tuolumne River basins. The highly publicized damage to facilities in Yosemite appeared to be largely due to their poor location in flood-prone areas.

Causes of damage

Although little is known about the scope of upland damage, it is hypothesized that the extent of damage was related to localized intense precipitation, geology, land use, and possibly, in some cases, recent fires that removed protective forest cover. Studies of similarly-sized storms and floods in Oregon in 1996 indicated that landslides tended to be concentrated in unstable terrain and were often associated with roads. The Highway 50 landslide, which occurred in an area of known instability, appeared to have been triggered by large amounts of rainfall in December and January (353 percent of normal in December and more than 200 percent of normal in January) which saturated soils, exceeding resistance to gravity.

Forest landowners who sustained damage from flooding or storm-related landslides and debris flows would naturally tend to focus on the infrastructure effects such as culvert or bridge washouts, road washouts and landslides. Although these may be significant concerns, before deciding how to respond a landowner should take the time to ponder the ecological effects as well. Consider whether simply replacing the infrastructure as before is desirable or whether other factors should be examined. The events of the 1997 storms should not be viewed as

an anomaly but rather as a relatively common phenomenon in California that repeats in different places at different times. The type of disturbance may vary from flood to fire to earthquake but large-scale disturbance is a fact of nature.



Erosion on roads and crossing failures may have occurred because of poor location, design and/or drainage. Consideration should be given to these factors before roads and crossings are replaced.

Ask hard questions

Some questions a landowner should ask in relation to damaged infrastructure are: was that bridge or culvert properly sized to accommodate the runoff that occurred? Was that washed-out road or broken water line located in the wrong place; that is, was it located on an unstable slope or in the path of the landslide? Did that road or culvert or ditch divert water to unstable slopes and cause a landslide? Did the road drainage system work as intended? If the answers indicate that the infrastructure was improperly designed, consideration should be given to relocating or redesigning it to survive the next large event that will inevitably occur. If a landowner was fortunate enough to have not sustained infrastructure damage, as in much of the Coastal Province, it is time to ask these questions in view of the lessons learned elsewhere to be better prepared.

Positive effects of flooding

Disturbance events like floods and landslides play crucial roles in sustaining natural forest ecosystems. Runoff may convey woody debris from upslope areas

to streams where it can have positive effects on aquatic habitat. Flooding may undercut banks and cause streamside trees to fall into the stream, again creating habitat. In addition to considering the location of infrastructure relative to disturbance, a landowner should also consider the ecological effects of his or her response to the damage.

A landowner may have an impulse to remove woody debris in streams because of the mess or possible danger to infrastructure. Since we do not know how much wood in a stream is "enough," fish biologists and experts on stream dynamics tend to agree that whatever is in the stream should be left in the stream if at all possible. Many ecologists view the inputs of wood due to the recent storms in a very positive way. Especially for streams with anadromous fisheries, the wood provides habitat and hiding cover for juveniles. Of course, compromise may be necessary in cases where wood obstructs culverts, could divert streamflow and erode improvements or where future movement could damage bridges. Nevertheless, if it is at all possible, a landowner should seek to remove only that wood which presents an obvious hazard.

Lessons from the flood

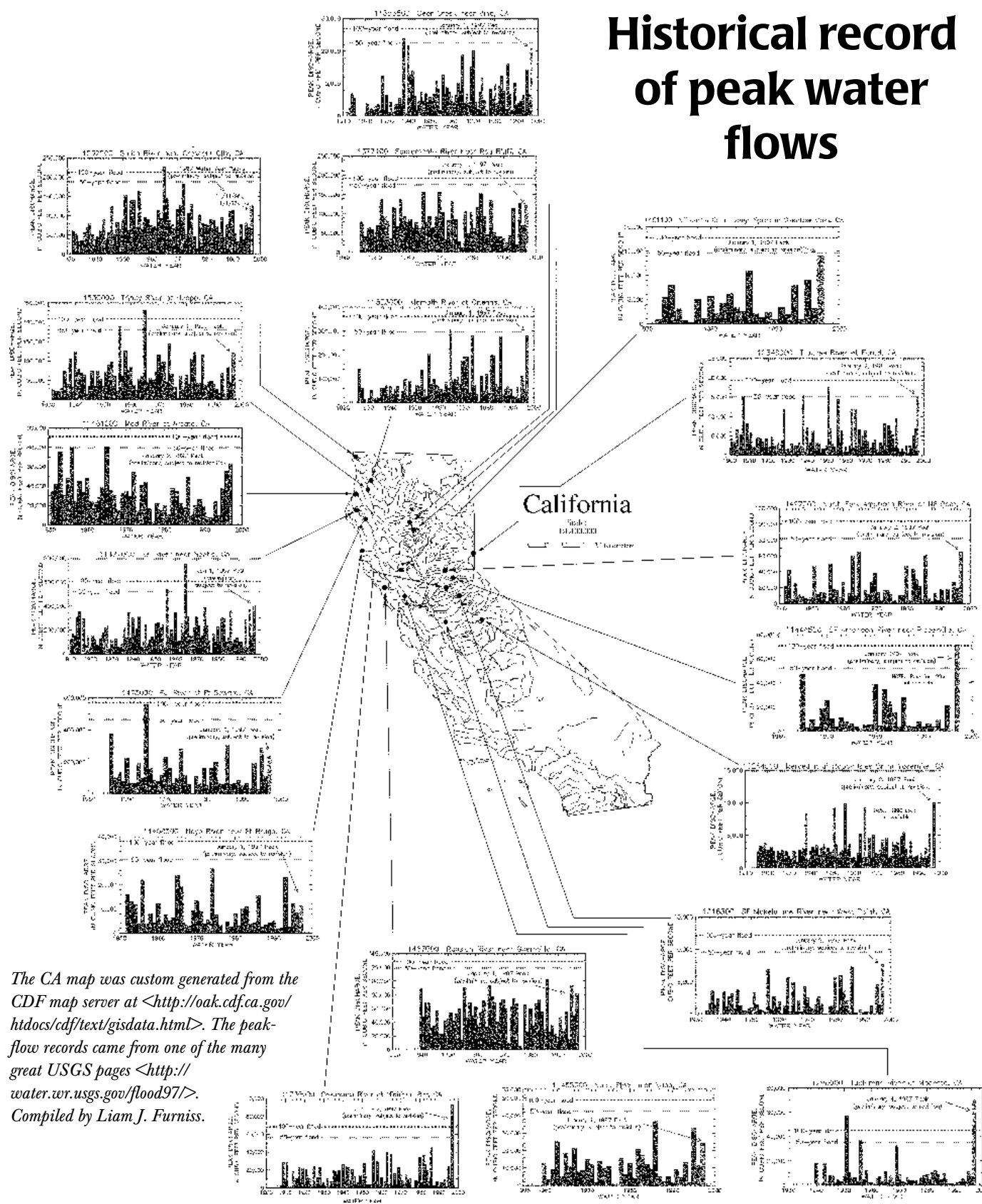
The 1997 floods can teach us lessons about how ecosystems behave during extreme disturbances and how people's activities influence that behavior. The suggestions given above are meant to stimulate thought rather than provide comprehensive guidance. Every landowner's situation is different. The message is to broaden the perspective to include more than just an "emergency" response.

Landowners seeking assistance on interpreting the effects of the storms and floods should contact their local NRCS, Cooperative Extension, RCD and other agencies (Department of Fish & Game, CDF and Regional Water Quality Control Board). These agencies may also be able to provide information on funding sources available to repair damaged infrastructure or enhance ecological conditions.



"If it is at all possible, a landowner should seek to remove only wood that presents an obvious hazard."

Historical record of peak water flows



The CA map was custom generated from the CDF map server at <http://oak.cdf.ca.gov/hidocs/cdf/text/gisdata.html>. The peak-flow records came from one of the many great USGS pages <http://water.wr.usgs.gov/flood97/>. Compiled by Liam J. Furniss.

"The events of the 1997 storms should not be viewed as an anomaly but rather as a relatively common phenomenon that repeats in different places at different times."



Resources

Learn about pine pitch canker disease

Pine pitch canker is a virulent and incurable fungal disease that threatens to destroy 85% of the native Monterey pine forests within the next decade. The fungus is transmitted by bark, cone and twig beetles whose dispersal may carry the disease to new locations. Pitch canker is now found in 17 counties from Mendocino to San Diego.

Although Monterey pines are the most susceptible, pitch canker has also been found in eight other pine species and in Douglas fir. This raises the fear that the disease will spread to the Sierra Nevada, Coast, and Cascade ranges.

Infected trees may exhibit a number of symptoms:

- Discoloration on the branches, trunk and exposed roots.
- The fungus infects branches from the tips down, turning needles brown.
- The infection creates a flow of amber pitch that runs down the trunk.

At this time, pine pitch canker cannot be eradicated so the emphasis is on education to slow and limit the spread of the disease. The following steps should be taken:

- Avoid transportation of infected trees or firewood from region of origin.

Pine pitch canker cannot be eradicated so the emphasis is on education to slow and limit the spread of the disease.

- Sterilize pruning tools with bleach before and after pruning operations.
- Chip and spread or burn infected plant material.
- Do not use Monterey pines for landscape plantings at this time
- Report new occurrences of pitch canker to CDF.

A new video entitled *Pine Pitch Canker: A Threat to California's Forests* is available to agencies and the public. This 16 minute video provides background on the disease and scope of the problem. It also contains specific information on management and control along with local contacts. The video was produced by Del Monte Forest Foundation for the Pine Pitch Canker Task Force. To get a copy, contact ATTN: Ladonna, Del Monte Forest Foundation, Forest Lake & Lopez Roads, Pebble Beach, 93953; (408) 373-1293.

Publications, a bibliography, poster, general display, and traveling presentations are available.

A pine pitch canker website will be online in June with up-to-date information on identification, prevention, management, research, contacts, and other related topics.

For information, call the Stewardship Helpline, 1-800-738-TREE.

Technical Assistance Resources

Many agencies are available to provide technical assistance, referrals, information, education, land management plan assistance, and advice.

California Department of Forestry and Fire Protection

Forestry Assistance Program

Jim Geiger (916) 653-8286

California Association of Resource Conservation Districts

Thomas Wehri (916) 447-7237

California Resources Agency

California Environmental Resources Evaluation System (CERES)

Deanne DiPietro (916) 653-8614

Coastal Conservancy

Neal Fishman/Carol Arnold (510) 286-4181

Farm Service Agency

Larry Plumb (916) 498-5300

Natural Resources Conservation Service

Jerry Reiox (916) 757-8256

..... (209) 946-6229

California Department of Fish and Game

Terry Mansfield (916) 653-1921

U.C. Cooperative Extension Forestry

John LeBlanc (510) 642-6678

USDA Forest Service

Sandra Stone (415) 705-2587

California Stewardship Helpline (800) 738-TREE



Calendar

June 19, 1997

Introduction to NEPA: A Step-by-Step Approach

San Francisco, CA
UC Berkeley Extension; \$235; 510/643-7143;

June 20, 1997

Sacramento River Watershed Program Stakeholders meeting.

Red Bluff Community Center
Types of funding available to local groups, displays, reception. Val Connor (916) 255-3111 or Bobbie Cox (916) 758-2100.

June 20, 1997 9:00 am

Riparian Guild meeting

San Jose, CA
Riparian Guild; \$5.00; Bernie Goldner 408/438-1874; <bgoldner@cruzio.com>

June 24–26, 1997

Understanding Change in Managed and Unmanaged Forests

Raleigh, NC
Dr. James Cook 715/346-2269; fax 715/346-3624; <jcook@uwsp.edu>

June 25–29, 1997

Wildlife of California's Northeast Cascade Range

Mt. Lassen National Park, CA
UC Santa Cruz Extension; \$199; 800/660-8639

June 27, 1997

Overview of Environmental Laws and Regulations

San Francisco, CA
UC Berkeley Extension; \$195; 510/643-7143

July 7–12, 1997

Forest Products for Sustainable Forestry: IUFRO All Division 5 Conference

Pullman, WA
Washington State University; 509/335-3530 or 800/942-4978

July 10–11, 1997

Program on Mountain Meadow Systems

South Lake Tahoe, CA
CA Section, Society for Range Management; Barbara Allen-Diaz 510/642-7125

July 11–12, 1997

Case Studies in Advanced Environmental Law and Management

San Francisco, CA
UC Berkeley Extension; \$395
Notes: Also held July 25–26, 1997

July 14–18, 1997

Habitat Evaluation Procedures

Fort Collins, CO
Colorado State University; \$600; 970/491-7767

July 14–16, 1997

Use of Residuals as Soil Amendments in Forest Ecosystems

Seattle, WA
University of Washington; 206/543-0867

July 28–31, 1997

Forest Operations for Sustainable Forests and Healthy Economies

Rapid City, SD
Council of Forest Engineering 20th Annual Meeting; Lawson Starnes 303/275-5022

August 10–14, 1997

Tools for Transforming Tomorrow

Minneapolis, MN
American Society of Agricultural Engineers; 616/429-0300; fax 616/429-3852; <hq@asae.org>

August 12–15, 1997

Mesocarnivores of Northern California: Biology, Management, and Survey Techniques

Humboldt State U., Arcata, CA
Various costs; One-day field trip included; The Wildlife Society, CA North Coast Chapter; Sandra von Arb 707/445-7805; <cnctws@northcoast.com>

August 24–28, 1997

American Fisheries Society 127th Annual National Meeting

Monterey, CA
American Fisheries Society; Barbara Simpson 916/653-0944

September 8–16, 1997

Natural Resources Institute: Systems Approaches to Organisms & Communities

Eatonville, WA
University of Washington; 206/543-0867

September 15–16, 1997

Ground Water and Future Supply

Sacramento, CA
UC Water Resources Center 21st Biennial Ground Water Conference; Gina Ferrell 916/752-7999; <gmferrell@ucdavis.edu>

September 15–26, 1997

IUFRO Uneven-aged Silviculture Workshop & Field Tour

Corvallis, OR
Wm. Emmingham, OSU, 541/737-6078; or Max Bennett 541/737-3159

October 2–4, 1997

Family Forest Management Conference

Eureka, CA
Forest Landowners of California; Dan Weldon 916/972-0273

October 10–12, 1997

CalEPPC Symposium '97

Concord, CA
California Exotic Pest Plant Council; \$75; Sally Davis 714/888-8541; <sallydavis@aol.com>

October 21–24, 1997

Restoration as Process Through Philosophy, Ecology, and Community
San Luis Obispo, CA
Society for Ecological Restoration Annual Meeting; CA Native Grass Assn.; San Luis Obispo County Parks; Edith Read 714/751-7373; <eread@psomas.com>

October 28–29, 1997

Forest Seedling Nutrition from the Nursery to the Field

Corvallis, OR
Oregon State University; OSU Conference Office 541/737-2329

For more information on these events, call the number given or the Stewardship Helpline, 1-800-738-TREE. To submit an event or to receive the electronic version of this calendar, contact jleblanc@nature.berkeley.edu.

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Who's who

Meet the Stewardship Committee

The California Forest Stewardship Coordinating Committee was established to advise CDF on the administration of the Stewardship Program. *Forestland Steward* newsletter is one of many projects directed by the committee. Others include a stewardship calendar, Forestry Helpline, demonstration projects, educational materials development, mini-conferences, computer program, and a curriculum for landowners. The Committee represents diverse interests and expertise as seen below.

Agency Representatives

Kay Antunez is Coordinator of Project Learning Tree, a program of CDF that introduces California educators to activities that help them teach their students about the environment.

Joan Cardillino, Coastal Conservancy

James Geiger is the Stewardship Program Manager for California Dept. of Forestry & Fire Protection

Richard Harris, UC Cooperative Extension Forestry Specialist

John LeBlanc, UC Cooperative Extension Forestry, provides education to landowners to help them become better stewards of the land

Terry Mansfield, Calif. Dept of Fish & Game

Larry Plumb, Farm Service Agency

Jerry Reioux, Natural Resource Conservation Service (NRCS)

Sandra Stone, USDA Forest Service, is the Program Manager for the Stewardship Incentive Program (SIP), Forest Legacy and Forest Stewardship Programs for the Forest Service

Bruce Turbeville is Chair of the Fire Safe Council, an advisory body to CDF

Mark Wheetley, Coastal Conservancy

Wendy Wickizer is the Stewardship Coordinator for the No. California Society of American Foresters, an organization that, among other activities, administers and staffs the Stewardship Helpline

CDF Director's Appointees

Gloria Barnwell, is a landowner and long-term member of the California Cattleman's Association (CCA)

Connie Best is Managing Director of Pacific Land Trust, a regional nonprofit conservation organization dedicated to

the conservation of private forestland.

Bill Brooks is Area Coordinator for the Central Coast Resource Conservation & Development Council (RC&D), a program supported by the USDA Natural Resource Conservation District

Charlotte Carrari, Inland Empire West Resource Conservation District

Jane Dunlap is a member of the public with interests and experience involving forest health in an urban setting

Janet Fairbanks, San Diego Association of Governments

Melvin Farnworth, landowner, is involved in community watershed projects with the Feather River RCD

Bruce Handley, Resource Consultant, works on building community-based stewardship

Robert J. Kerstiens is Chairman of the Board of Forestry and a rancher

Gladys Dick McKinney is a representative of the Native American community

Charles Sikora is Western Regional Director of the Association of Consulting Foresters and a professional forester

Jude Wait is Executive Director of the Institute for Sustainable Forestry which promotes forest management that contributes to the ecological and economic well-being of forest-based communities

Kathy Wallace is an active member of the California Indian Basketweavers Association

Thomas Wehri, California Association of Resource Conservation Districts

Daniel Weldon is Executive Director of Forest Landowners of California, an organization for nonindustrial private timberland owners of California

How can the *Forestland Steward* newsletter help you?

I'd like to see more information on _____

My suggestion is _____

☐ Add me to the mailing list / change my address:

Name _____

Address _____

City, Zip _____ Phone _____

Send to CDF, Forestry Assistance, P.O. Box 944246, Sacramento, CA 94244-2460.

Phone: (916) 653-8286; Fax: (916) 653-8957; e-mail: jim_geiger@fire.ca.gov